

Remarks

Claims 1, 2, 4-6, 9-12, 14, and 16-20 are pending in this application. The Examiner has objected to claims 1, 2, 4-6, 9-12, 14, and 16-20 due to informalities. The Examiner has rejected claims 1, 2, and 4 under 35 U.S.C. 112, second paragraph. The Examiner has rejected claims 1, 2, 4, 10-12, 14, and 16-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,567,892 to Horst et al. (hereinafter "Horst"). Additionally, the Examiner has rejected claims 5-9 under 35 U.S.C. § 103(a) as being obvious over Horst in view of U.S. Publication No. 2004/0117579 to Wu et al (hereinafter "Wu").

A. Objections and Rejections Under 35 U.S.C. 112

The Examiner has objected to claims 1, 2, 4-6, 9-12, 14, and 16-20 due to informalities. Applicants have amended these claims to incorporate the corrections suggested by the Examiner in the Office Action. Additionally, the Examiner objected to claims 1, 2, and 4 due to lack of antecedent basis for various elements in the claims. Applicants have also corrected these deficiencies as requested by the Examiner. Applicants respectfully request that the Examiner withdraw the objections to the claims and rejections under 35 U.S.C. 112.

B. Independent Claims 1, 10, and 18

Horst does not disclose all of the limitations of independent claims 1, 10, and 18. Independent claims 1, 10, and 18, as amended, each require, in part, providing a **count of commands stored in each drive controller**, where this count keeps track of the number of commands stored in the non-volatile memory of the drive controller (which are to be sent to the drive itself). When this count in the drive controller reaches a predetermined value, the drive controller then forces the cache in the drive to flush. The advantage of keeping such a count is detailed in the published specification of the present invention at paragraph [0019]. Specifically,

this command count allows an optimal rebuilding process in the case of the loss of a drive, where the rebuild does not need to start all over, and yet, the cache is not flushed too often. (Spec., [0019]) Keeping a command count allows the drive controller to know when it must force the flush of the cache in the drive.

In contrast to the present invention, Horst fails to teach providing a **count of commands, stored in each drive controller**. At best, Horst teaches that a maximum queue depth (of 256 for example) may be reached, and this situation may be detected by a timer that is configured to fire at an expected maximum amount of **time** between commands. (Horst, col. 7, lines 65-67) First, Horst fails to teach a **command count** that is maintained in a drive controller: The queue in Horst that has a maximum depth is located **outside of** the drive controllers. (Horst, Figure 1) Horst teaches a **timer** (and not a count) that is set to fire at a certain time, and this timer is not stored in a drive controller, or in each drive controller. (Horst, col. 7, lines 65-67) Thus, Horst fails to teach a count of commands, where this count is stored in each drive controller. Keeping a command count is not the same as having a timer that goes off at an expected time, because a command count tracks the actions of the system (by counting the number of command stored or sent), whereas the timer in Horst simply goes off at an expected maximum amount of time between commands.

Because Horst does not disclose each and every element of independent claims 1, 10, and 18, a rejection of these claims on anticipation grounds is improper. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir 1987). "The identical invention must be shown in

complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1336 (Fed. Cir 1989).

C. Independent Claim 5

Independent claim 5 also requires, in part, providing a **count of commands stored in each drive controller**, where this count keeps track of the number of commands stored in the non-volatile memory of the drive controller (which are to be sent to the drive itself). When this count in the drive controller reaches a predetermined value, the drive controller then forces the cache in the drive to flush. For the same reasons as stated above regarding independent claims 1, 10, and 18, Horst does not teach or disclose this element. The Examiner does not rely on Wu as teaching this element of a command count. Wu is directed to the mirroring of write access requests among nodes, and, at best, teaches data word counts, which are not the same as the command counts as recited in the independent claims. Wu does not teach a command count stored in each drive controller, as required by independent claim 5. As such, the combination of Wu and Horst fails to teach or suggest this element.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In *re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In *re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In *re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Because the combination of Horst and Wu fails to teach or suggest each and every claim limitation of

claim 5, a *prima facie* case of obviousness has not been established. As such, Applicants request that the rejection of this claim be withdrawn and that the claim be passed to issuance.

D. Dependent Claims

Because claims 2, 4, 6, 9, 11, 12, 14, 16, 17, 19, and 20 depend from claims 1, 5, 10, and 18, the rejection of these claims should be withdrawn, and the claims should be passed to issuance.

Conclusion

Applicants respectfully submit that pending claims 1, 2, 4-6, 9-12, 14, and 16-20 of the present invention are allowable. Applicants respectfully request that these claims be passed to issuance.

Respectfully submitted,



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